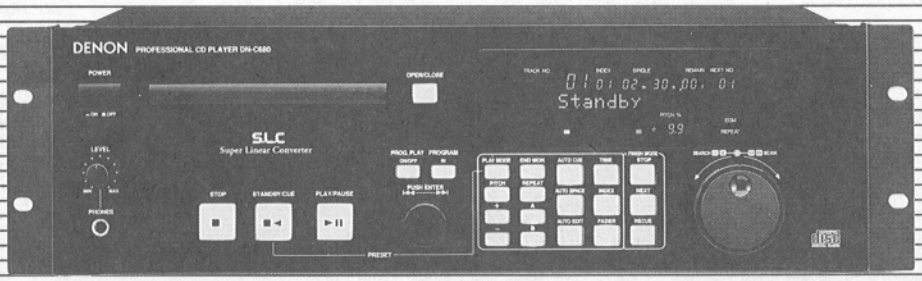
DENON

CD PLAYER

DN-C680

OPERATING INSTRUCTIONS



IMPORTANT TO SAFETY

WARNING:

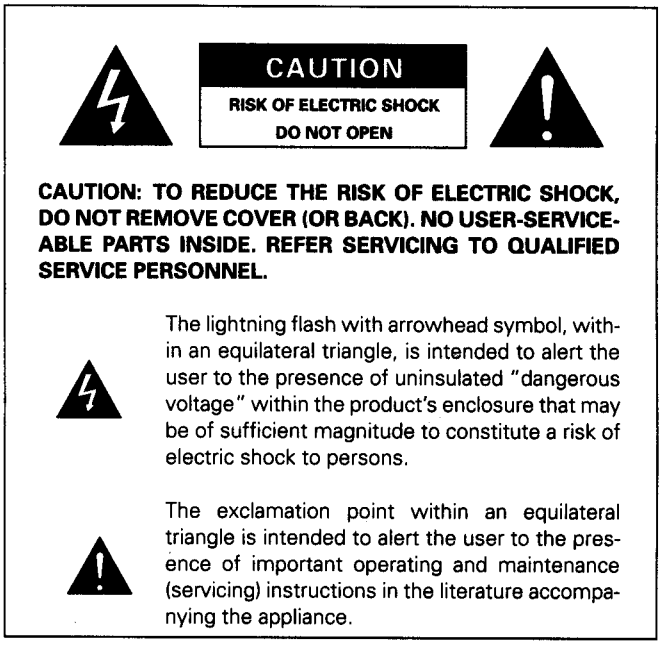
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

1. **Handle the power supply cord carefully**
   Do not damage or deform the power supply cord. If it is damaged or deformed, it may cause electric shock or malfunction when used. When removing from wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.
2. **Do not open the top cover**
   In order to prevent electric shock, do not open the top cover. If problems occur, contact your DENON dealer.
3. **Do not place anything inside**
   Do not place metal objects or spill **liquid** inside the CD player. Electric shock or malfunction may result.

Please, record and retain the Model name and serial number of your set shown on the rating label.

Model No. C-680 Serial No.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

NOTE:

This CD player uses the semiconductor laser. To allow you to enjoy music at a stable operation, it is recommended to use this in a room of 5°C (41 °F) - 35°C (95°F).

LABELS (for U.S.A. model only)

CERTIFICATION

THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J APPLICABLE AT DATE OF MANUFACTURE.

CAUTION: USE OF CONTROLS OR ADJUSTMENTS OR REFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

NOTE:

This unit may cause interference to radio and television reception if you do not operate it in strict accordance with this OPERATING INSTRUCTIONS.
This unit complies with Class B computing device rules in accordance with the specifications in Sub-part J or Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. If the unit does cause interference to any radio or television reception, try to reduce it by one or more of the following means:

a) Turn the other unit to improve reception
b) Move this unit
c) Move this unit away from others
d) Plug this unit respectively into a different AC outlet

• This is note to accordance with Section 15.838 of the FCC Rules.

CLASS 1 LASER PRODUCT

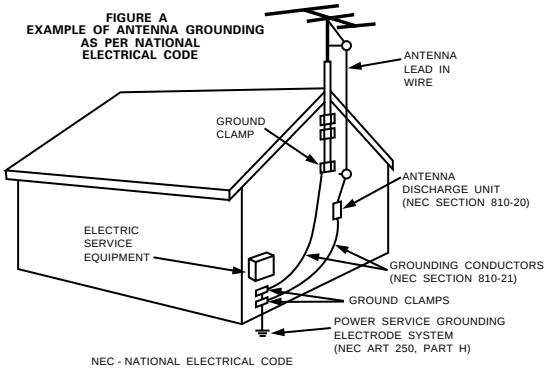
SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the applicance is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warning – All warnings on the applicance and in the operating instructions should be adhered to.
4. Following Instructions – All opeerating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washbbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

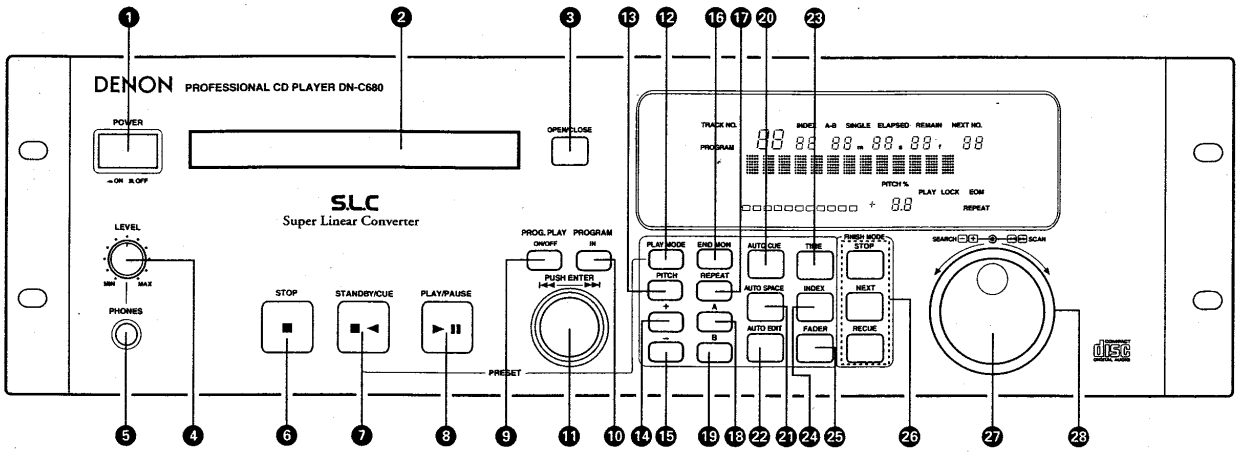
6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the applicance and cart combination to overturn.

7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization – Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
12. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.
15. Power Lines – An outdoor antenna should be located away from power lines.
16. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
17. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
18. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
19. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.
20. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

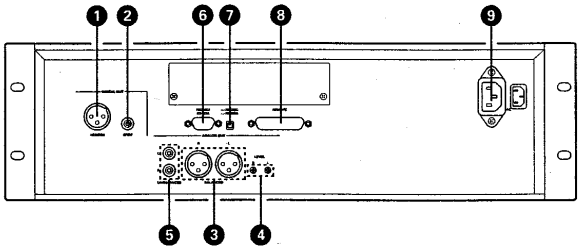
FIGURE A
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE


ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
NEC - NATIONAL ELECTRICAL CODE

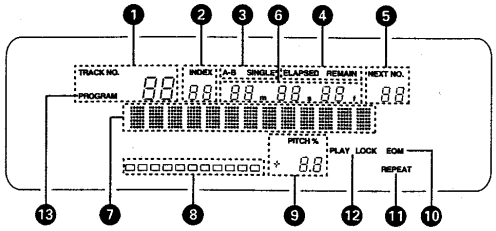
FRONT PANEL



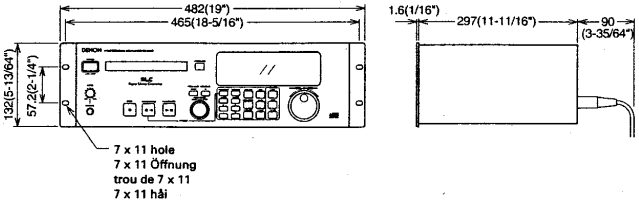
REAR PANEL

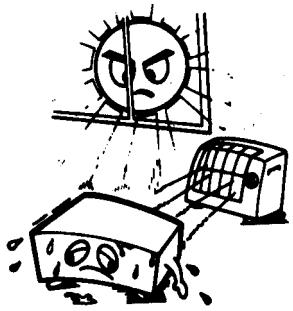


DISPLAY WINDOW

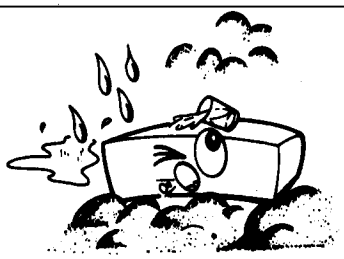


DIMENSIONS

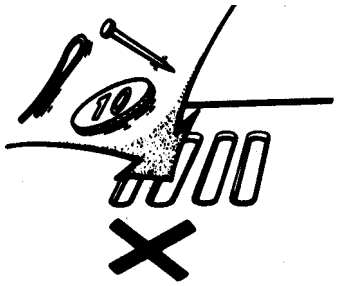




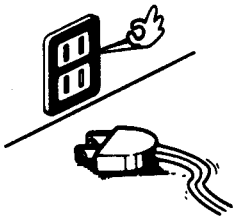
Avoid high temperatures
Allow for sufficient heat dispersion when installed on a rack.



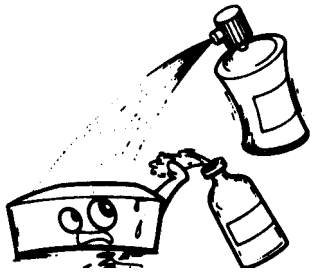
Keep the set free from moisture, water, and dust.



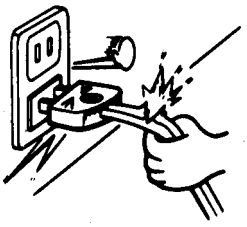
Do not let foreign objects in the set.



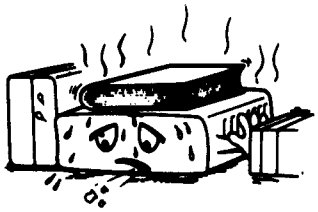
Unplug the power cord when not using the set for long periods of time.



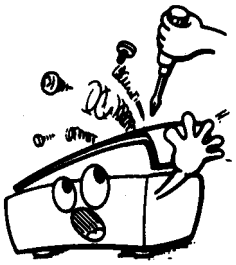
Do not let insecticides, benzene, and thinner come in contact with the set.



Handle the power cord carefully. Hold the plug when unplugging the cord.



"(For sets with ventilation holes)
Do not obstruct the ventilation holes.



Never disassemble or modify the set in any way.

MAIN FEATURES

The DN-C680 CD player is a rack mount type CD player designed for use in broadcast stations, for production; etc.

- **19 inch Rack Mountable (Height 3U)**
- **Large FL Display, Illuminated Rubber Button**
- **Track Search Select knob (Easy track selection)**
- **Jog/ Shuttle Wheel**
  Perform searches to 1 frame precision using the jog dial and easy scans using the shuttle ring.
- **Program Play (Max. 25 tracks)**
  (1) When the PLAY mode is set to Single, the player stands by at the beginning of next track. (at Finish mode Next)
  (2) When the PLAY mode is set to Continuous, the playback is continued according to your programmed sequence.
- **Play mode and Finish mode**
  (1) Play mode
  ① Continuous: Play a whole disc
  ② Single: Play a track
  ③ A-B: Play a A-B
  (2) Finish mode (Stop, Next, Recue)
  * only when Single Track play is selected.
  ① Stop: Stop after finishing to play a track.
  ② Next: Standby at the beginning of next track after finishing to play track.
  ③ Recue: After finishing to play a track, standby at the beginning of the track.
- **Auto Cue**
  After a disc is loaded, it is automatically cued to the point where audio starts. Cueing takes place at the point where audio starts rather than where the track starts. The level at which sound is first detected can be set between -36 to -72dB (7 steps).
- **End Monitor**
  Pressing the END MON button during standby instantly previews the end of the track, thus assuring perfect "end point". The point at which monitoring starts can be set within a range of 5 to 35 seconds (7 steps) prior to the track's end.
- **End of Message (EOM)**
  At the end of a track, the Display's EOM button flashes, providing a visual warning to the operator that the track will end shortly. The point at which the flashing begins can be set within a range of 0 to 30 seconds (7 steps) prior to the end of the track.
- **Pitch Control (t 9.9%, 0.1 % step) e Index Search**
  The Select knob can be used to perform an Index Search when the INDEX button is ON. (The LED on the INDEX button light up.)
- **AUTO SPACE**
  During playback, it is possible to insert a silent space of about 4 seconds between tracks. To do this, simply press the AUTO SPACE button to ON.
  (The LED on the AUTO SPACE button light up.)
- **AUTO EDIT**
  This function automatically divides the total recorded time on the disc in half and rearranges the track so that they fit nearly onto the A and B sides.
- **Display of Playback Locations**
  A bar graph display indicates playback points on the track being played. Elapsed time and Remaining time displays are switched using the TIME button.
- **Rich Array of External Control Terminals**
  Serial Remote (RS232C/RS422A switchable, D-sub 9 pin) Parallel Remote (D-sub 25 pin)
- **ACD-25FSC (FS Converter Kit) Option**
  Digital output is possible at 32 and 48 kHz as well as 44.1 kHz. Output frequency can be preset to 32, 44.1, or 48 kHz.

CONTENTS

1. PART NAMES AND FUNCTIONS ..... 9~11
   (1) Front Panel 9,10
   (2) Rear Panel 10,11
   (3) Display 11
2. REMOTE CONTROL CONNECTION 12
3. OPENING AND CLOSING THE DISC HOLDER AND LOADING DISCS 12
4. BASIC OPERATION 13, 14
   (1) Before Starting Playback 13
   (2) Starting Playback 14
   (3) Stopping Playback 14
   (4) PLAY/PAUSE and STANDBY/CUE Operations 14
5. HANDY OPERATIONS 15-18
   (1) Starting Playback from the Middle of a Track (Manual Search) 15
   (2) Playing at a. Different Speed (Pitch) 15
   (3) Playing a Specific Section of the Disc (A-B Play) 16
   (4) Playing Repeatedly (Repeat) 17
   (5) Inserting Blank Spaces Between Tracks (Auto Space) 18
   (6) Dividing the Playing Time in Two (Auto Edit) 18
6. PROGRAMMED PLAYBACK ..... 19~21
   (1) Inputting the Program 19
   (2) Changing the Program 19, 20
   (3) Playing Programs 20
   (4) Presetting Programs 21
7. PRESET FUNCTIONS AND OPERATIONS ..... 22~25
   (1) List of Preset Functions 22
   (2) Presetting Procedure 23
   (3) Detailed Description of Preset Functions 24, 25
8. BEFORE SWITCHING OFF THE POWER 26
9. COMPACT DISCS 26
10. TROUBLESHOOTING 27
11. SPECIFICATIONS 27

Checking the Contents

Check that the carton contains the following items:

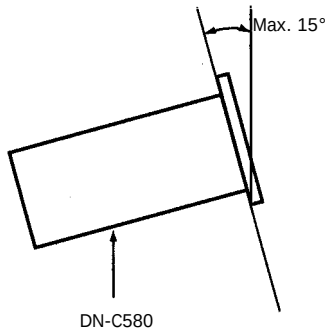
3P power supply cord	1 PC.
Operating instructions (this booklet)	1 PC.

Installing the Units

Mount the units onto your console or rack with 19" EIA rack rails.

CAUTION:

- The DN-C680 will work normally when the player unit is mounted with the front panel within 15 degrees of the vertical plane. If the unit is tilted excessively, discs may not load or unload properly.



• DECLARATION OF CONFORMITY

We declare under our sole responsibility that this product, to which this declaration relates, is in conformity with the following standards: EN60065, EN55013, EN55020, EN60555-2 and EN60555-3. Following the provisions of 73/23/EEC, 89/336/EEC and 93/68/EEC Directive.

1 PART NAMES AND FUNCTIONS

(1) Front Panel

1 POWER button
- This turns the set on and off.

2 Disc holder
- Place discs in this holder.
  Press the OPEN/CLOSE button to open and close the disc holder.
  Load discs firmly inside the slot.

3 OPEN/ CLOSE button
- Press this button to open and close the disc holder. The disc holder will not open during playback.

4 LEVEL control
- Use this to adjust the volume of the headphones.

5 PHONES jack
- Connect headphones with an impedance of 30 to 40 62/ohms.

6 STOP button
- Press this button to turn all the servo functions off and stop. Press this button during playback to set the stop mode.

7 STANBDY / CUE button
- When this button is pressed during the play or pause mode, the pickup returns to the position at which playback started and the standby mode is set. **(Back Cue)**
- When pressed during playback when the next track has been programmed, the programmed track is searched for and the standby mode is set.
- The button lights when the standby mode is set.
- When the button is pressed while pressing the PLAY MODE button, the preset mode is set.

8 PLAY / PAUSE button
- Press this button in the standby, pause or manual search mode to begin playback.
- Press the button in the stop mode to search for the first track and begin playback.
- The button lights during the play mode.
- When the button is pressed during playback, the pause mode is set. The button flashes while the pause mode is set.

9 PROG. PLAY ON/ OFF button
- When this button is pressed while the PROGRAM IN button is lit, the program play mode is set.
- The button will not function during the A-B play mode.
- The button lights during the program play standby and play modes.
- When the button is pressed during the program play standby or play mode, the program play mode is cleared.

10 PROGRAM IN button
- Press this button to set the program input mode.
- The button will not function during the play mode.
- The button flashes when in the program input mode.
- The button lights when a program is set.

11 Select knob
- Turn this' knob to select the next track (or index number) to be played.
- Use the INDEX button to choose whether to select tracks or index numbers.
- Turn the knob clockwise by one click to move one track (or one index number) forward, counterclockwise by one click to move one track (or one index number) backward.
- When the knob turned while pressing it in, one click corresponds to 10 tracks (or 10 index numbers).
- In the preset mode, use this knob to set and enter preset settings.
- When setting programs, use this knob to select, enter and check the program.

12 PLAY MODE button
- Press this button to switch the play mode.

13 PITCH button
- Press this button to switch to the play speed set with the + and -buttons.
- The button lights when the pitch play mode is set.
- Press the button again to cancel the pitch play mode and return to the normal speed.

14 + button
- Press this button once to increase the pitch by 0.1 %.
- Hold the button in to increase the pitch continuously.
- Press the button in the program editing mode to set the program insert mode.

15 - button
- Press this button once to decrease the pitch by 0.1%.
- Hold the button in to decrease the pitch continuously.
- Press the button in the program editing mode to clear the program.

16 END MON button
- Press this button in the standby mode to monitor the end of the track. **(End Monitor)**
- The button lights when the end monitor mode is set.

17 REPEAT button
- Press this button to set the repeat mode.
- The button lights when the repeat mode is set.
- Press the button again to cancel the repeat mode.

18 A button
- Press this button when no A point is set to set the A point.
- The button lights when the A point is set.
- When pressed while the A point is set, the A point is searched for and the standby mode is set.
- When the button is pressed during manual search while the A point is set, the A point changes.

19 B button
- Press this button when no B point is set to set the B point.
- The button lights when the B point is set.
- When pressed while the B point is set, the B point is searched for and the standby mode is set.
- When the button is pressed during manual search while the B point is set, the B point changes.

20 AUTO CUE button

- Press this button to find the beginning of the playback signals on a track and automatically set the standby mode at that point. **(Auto Cue)**
- The button lights when the auto cue mode is set.
- Press the button again to cancel the auto cue mode.

21 AUTO SPACE button

- Press this button to automatically insert blank spaces of 4 seconds between tracks during continuous playback. **(Auto Space)**
- The button lights when the auto space mode is set.
- Press the button again to cancel the auto cue mode.

22 AUTO EDIT button

- Press this button to divide the tracks on the disc into a first half (side A) and second half (side B) at the point nearest to half of the disc's total playing time. **(Auto Edit)**
- When the A button is pressed while the auto edit mode is on, the A button lights and the number of the first track and total playing time of the first half (side A) are displayed on the character display.
- When the B button is pressed while the auto edit mode is on, the B button lights and the number of the first track and total playing time of the second half (side B) are displayed on the character display.
- Press the button again to cancel the auto edit mode.

23 TIME button

- Press this button to switch the time display between the remaining time (REMAIN) and the elapsed time (ELAPSED).

24 INDEX button

- Press this button to set the index select mode, then use the select knob to select the index number.
- The button lights when the index select mode is set.
- Press the button again to return to the track select mode.

25 FADER button

- Press this button to enable input of the fader input signals connected to the "PARALLEL REMOTE" connector.
- The button lights when fader input signal input is enabled.
- Press the button again to cancel the mode.

26 FINISH MODE button

One of the following three finish modes can be selected:

- Press the STOP button to light the button and set the finish mode to the stop mode.
- Press the NEXT button to light the button and set the finish mode to the next mode.
- Press the RECUE button to light the button and set the finish mode to the recue mode.

27 SEARCH dial (inner side)

- Turn this dial to set the manual search mode.
- Turn the dial clockwise to move the playback position forward, counterclockwise to move the playback position backward.
- One click corresponds to one frame of movement. The playback position can be moved anywhere between the beginning of the first track and the end of the last track.

28 SCAN dial (outer side)

- Turn this dial to set the manual search (fast forward or fast reverse) mode.
- Turn the dial clockwise to move the playback position forward, counterclockwise to move the playback position backward.
- The speed changes according to the angle at which the dialis turned.

(2) Rear Panel

1 DIGITAL OUT (BALANCED) connector

- This is an active balanced output using an XLR type connector.
- Connect this connector to the balanced digital input connector on an amplifier or console.
- Signal format: Selectable (See Page 24, 8) 9))
- Pin layout:
  1. Common
  2. Cold
  3. Hot
- Applicable connector: Cannon XLR-3-31 or equivalent

2 DIGITAL OUT (UNBALANCED) jack

- This is an unbalanced output using an RCA type jack.
- Connect this jack to the unbalanced digital input jack on an amplifier or console.
- Signal format: Selectable (See Page 24, 8) 9))

3 ANALOG OUT (BALANCE) connectors

- These are active balanced outputs using XLR type connectors.
- Connect these connectors to the balanced analog input connectors on an amplifier or console.
- Pin layout:

Pin No.	U.S.A. & Canada	Europe & Asia & Others
1	Common	Common
2	Cold	Hot
3	Hot	Cold

- Applicable connector: Cannon **XLR-3-31 or equivalent**

NOTE: Do not short-circuit the hot or cold pin with the common pin.

4 LEVEL L/R controls

- Use these controls to adjust the level of the audio-signals from the ANALOG OUT (BALANCED) connectors.

5 ANALOG OUT (UNBALANCED) jacks

- These are unbalanced outputs using RCA type jacks.
- Connect these jacks to the unbalanced analog input jacks on an amplifier or console.

❻ RS232C/RS422A connector

- This is a serial remote connector. A personal computer or other external controller can be connected to control the DN-C680 externally.
- Applicable connector: 9-pin D-sub (female)
- Baud rate: 9600 bps or 19200 bps
- Pin layout:

	RS232C		RS422A	
Pin no.	Signal name	I/0	Signal name	I/0
1	NC	-	NC	-
6	NC	-	S.GROUND	-
2	TxD	0	TxD (RETURN)	0
7	NC	-	TxD	0
3	RxD	I	RxD	I
8	NC	-	R x D (RETURN)	I
4	NC	-	NC	-
9	NC	-	NC	-
5	S.GROUND	-	S.GROUND	-

❼ RS232C /RS422A selector switch

Use this to switch the serial remote connector signal between RS232C and RS422A according to the external controller's signal.

❽ REMOTE connector

This is a parallel remote connector. Use it to control the DN-C680 with dry contact circuit connections. Applicable connector: 25-pin D-sub (male) Connector signal layout:

Pin no.	Signal name	I/O	
1	FG	-	
14	PLAY tally	O	TTL(Iol=20mA)
2	PLAY command	I	HCMOS(Ii=3mA)
15	PAUSE tally	O	TTL(Iol=20mA)
3	PAUSE command	I	HCMOS(Ii=3mA)
16	STDBY/CUE tally	O	TTL(Iol=20mA)
4	STDBY/CUE command	I	HCMOS(Ii=3mA)
17	INDEX2/INDEX3 tally	O	TTL(Iol=20mA)
5	TRACK(+) command	I	HCMOS(Ii=3mA)
18	Tally common	-	
6	TRACK(-) command	I	HCMOS(Ii=3mA)
19	Reserved	-	
7	SEARCH(FWD) command	I	HCMOS(Ii=3mA)
20	Reserved	-	
8	SEARCH(REV) command	I	HCMOS(Ii=3mA)
21	Reserved	-	
9	FADER START command	I	PHOTO COUPLER
22	Tally power supply	-	+5V, 20mA
10	Command common	-	(Ii =10mA)
23	Command common	-	
11	NC	-	
24	EOM tally	O	TTL(Iol=20mA)
12	Reserved	-	
25	Reserved	-	
13	Reserved	-	

NOTE: The tally output pin has open collector IC specifications (Imax. 20 mA, Vmax. 5V), but the maximum supply current is 80 mA, so use with a total load current of 80 mA or less.

❾ AC inlet

- Connect the included power cord here.

(3) Display

❶ TRACK No. display

- This indicates the track number at the current position. The track number flashes during the track search operation and when switching to the standby mode.

❷ INDEX No. display

- This indicates the index number at the current position. If the next index is scheduled, that index number flashes on the INDEX No. display. The index number also flashes during the index search operation.

❸ PLAY MODE indicators

- "A-B" lights when in the A-B play mode.
- "SINGLE" lights when in the single track play mode.

❹ TIME MODE indicators

- "ELAPSED" lights when the elapsed time is displayed.
- "REMAIN" lights when the remaining time is displayed.

❺ NEXT No. display

- This displays the number of the next track to be played.

❻ Playing time display

- This indicates the time of the current position, in minutes (m), seconds (s) and frames (f).

❼ Character display

This displays operation messages in the preset and program modes.

❽ Playing position display

- This indicates the current position within the track's total playing time.

❾ PITCH display

- This indicates the set play speed in %.

❿ EOM indicator

- This lights when the EOM is preset, and starts flashing when the EOM set time is reached.

⓫ REPEAT indicator

- This lights when the repeat mode is set.

⓬ PLAY LOCK indicator

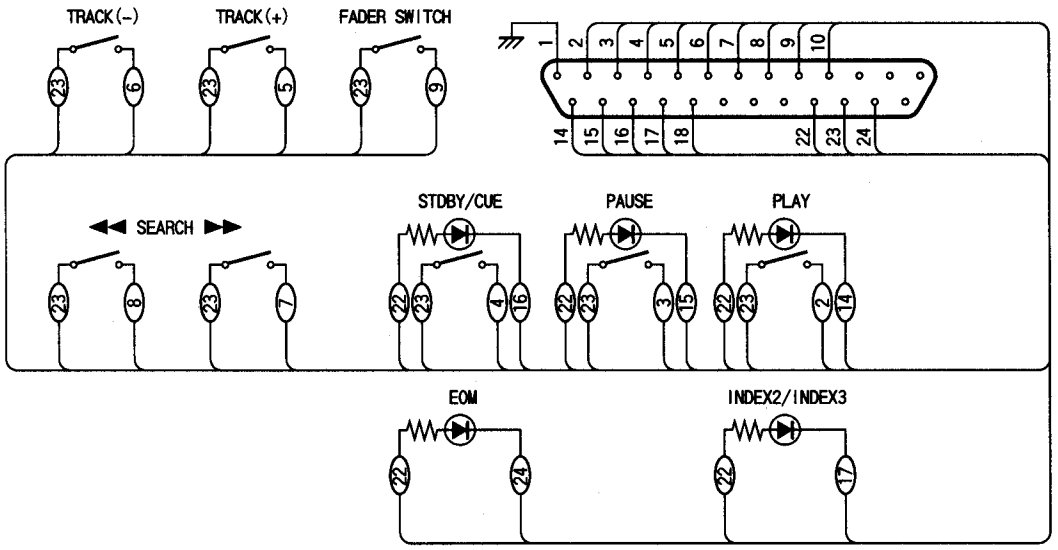
- This lights when the PLAY LOCK is preset.
(See Page 25,17))

⓭ PROGRAM indicator

- This lights when the PROG. PLAY ON/OFF mode is set.

2 REMOTE CONTROL CONNECTIONS

To control the DN-C680 remotely, refer to the example of remote control connections given below.



The rating of REMOTE connector pin 22 (TALLY POWER SUPPLY) is +5 V, 80 mA maximum.
Avoid currents in excess of the rating.

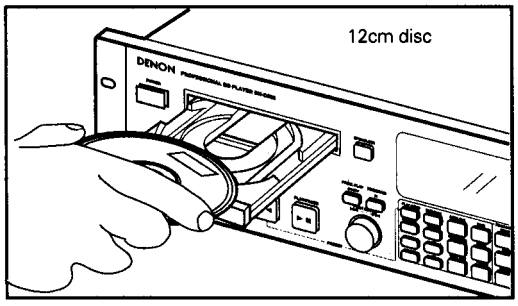
3 OPENING AND CLOSING THE DISC HOLDER AND LOADING DISCS

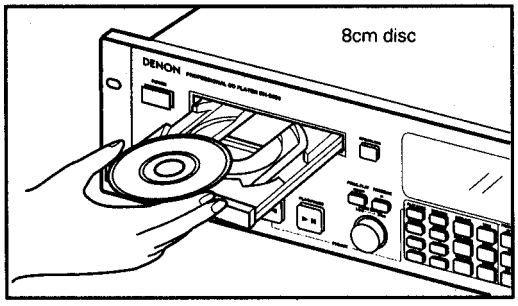
(1) Opening and closing the disc holder

- This operation only works when the power is on.
- Press the OPEN /CLOSE button to open or close the disc holder.
- The disc holders cannot be opened during playback to prevent playback from being interrupted if the OPEN/CLOSE button is pressed accidentally. Stop playback, then press the OPEN/CLOSE button.

(2) Loading discs

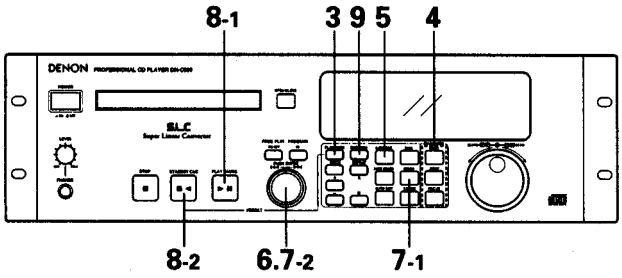
- Hold the disc by the edges and place it in the disc tray, Do not touch the signal surface (the glossy side).
- When using 12cm discs, place the disc in the outer tray guides, and when using 8cm discs, place them securely in the inner guides.





CAUTION:

- Do not place any foreign objects in the disc tray, and do not place more than one disc in the disc tray at a time. Doing so may result in malfunction.
- Do not push the disc tray in manually when the power is off, as this may result in malfunction and damage the player.

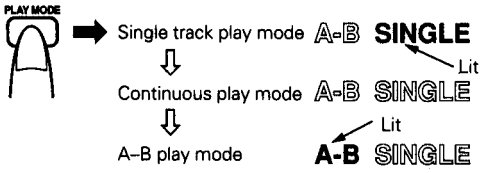


(1) Before Starting Playback

1 **Load a disc.**

2 **Make the presettings according to the usage purpose. (See Page 22.)**
NOTE: Steps 1 and 2 can be performed in the opposite order.

3 **Select the play mode.**
Press the PLAY MODE button.

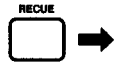


NOTE: The A–B play mode cannot be set unless the A and B points are set.

4 **Select the play finish mode.**
When the finish mode is selected, the selected button lights.

The stop mode (the servo functions turn off) is set when playback finishes.

The standby mode is set at the beginning of the next track when playback is finished.
* After the final track is played, the standby mode is set at the beginning of the first track.

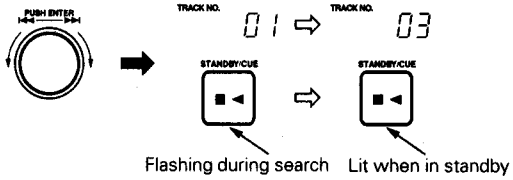


When playback is finished, the standby mode is set at the position at which playback was started.

5 **To standby at the point where the sound begins**
Press the AUTO CUE button.

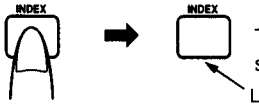
When a track is selected, the position at which the sound begins is found when a track is cued and the standby mode is set at that point.

6 **Select the track to be played.**
Turn the select knob (⏮◀◀ — ▶▶⏭).



The selected track is cued and the standby mode is set.

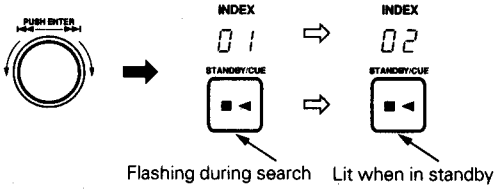
7-1 **To select an index number**
Press the INDEX button.



The index select mode is set.

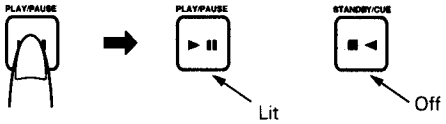
NOTE: The track select mode is set when the button is off. There is no need to select an index number when you want to play the track from the beginning.

7-2 Turn the select knob (⏮◀◀ — ▶▶⏭).



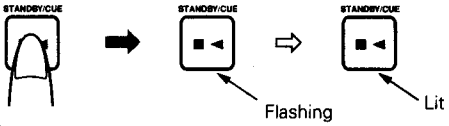
The selected index number is cued and the standby mode is set.
If a non-existent index number is selected, "No Sel.Index" appears and the index number flashes.

8-1 **To check the play start position**
Press the PLAY/PAUSE button.



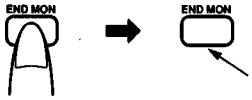
Monitor the playback signals to check the play start position.

8-2 Press the STANDBY/CUE button.



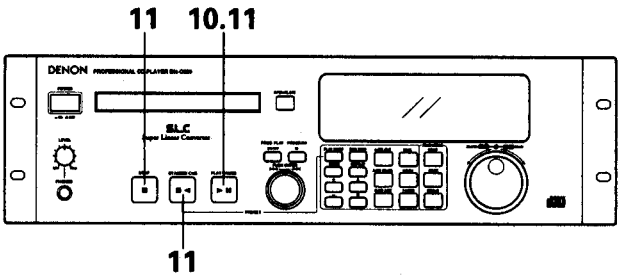
The pickup returns to the play start position and the standby mode is set. **(Back Cue)**

9 **To check the play end position**
Press the END MON button.

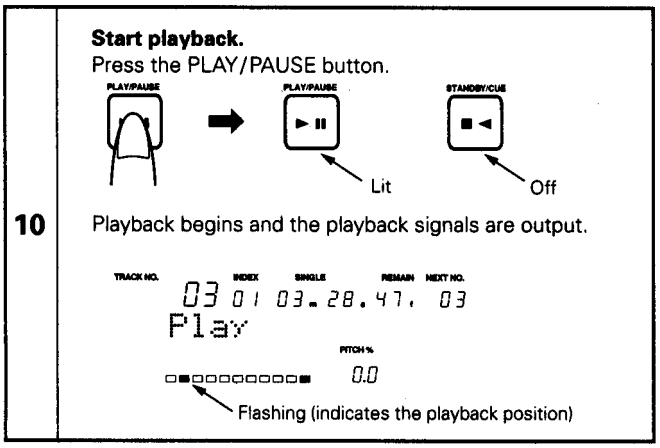


The end is monitored, then the pickup returns to the play start position and the standby mode is set. **(End Monitor)**

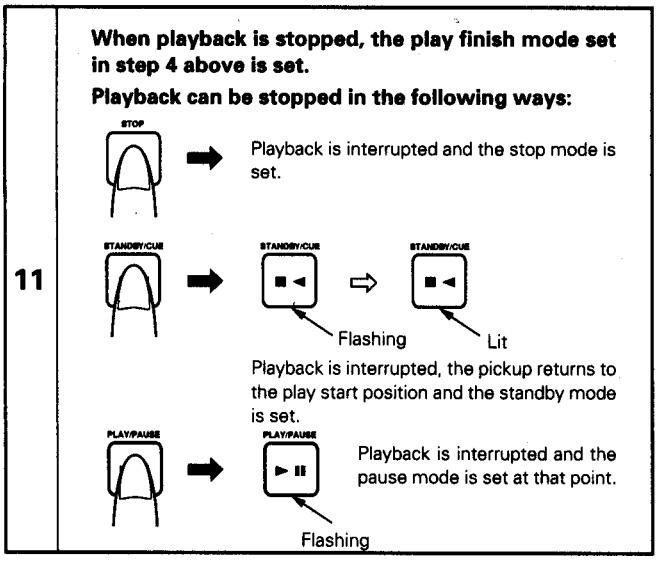
NOTE: If the STANDBY/CUE button is pressed during the end monitor operation, the end monitor operation is canceled, the pickup returns to the play start position and the standby mode is set.



(2) Starting Playback



(3) Stopping Playback


When playback is stopped, the play finish mode set in step 4 above is set.
Playback can be stopped in the following ways:
STOP
Playback is interrupted and the stop mode is set.
11
STANDBY/CUE
STANDBY/CUE
STANDBY/CUE
Flashing
Lit
Playback is interrupted, the pickup returns to the play start position and the standby mode is set.
PLAY/PAUSE
PLAY/PAUSE
Playback is interrupted and the pause mode is set at that point.
Flashing

Sleep mode

The sleep mode is set if no operation is performed for 30 minutes in the standby, pause or manual search mode.

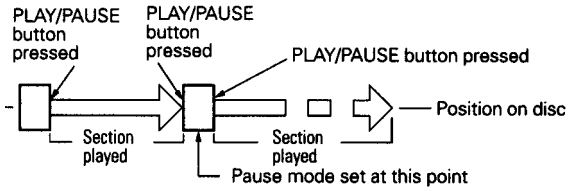
When in the sleep mode, press the PLAY/PAUSE button to search for the position before the sleep mode was set and start playback. Press the STANDBY/CUE button to search for the position before the sleep mode was set and standby at that point.

(4) PLAY /PAUSE and STANDBY/ CUE Operations

- The operation switches between playback and pause each time the PLAY/PAUSE button is pressed.
- When the STANDBY/CUE button is pressed during playback, the pickup returns to the position at which playback was started.

The diagrams below show playback patterns when the PLAY/PAUSE and STANDBY/CUE buttons are pressed.

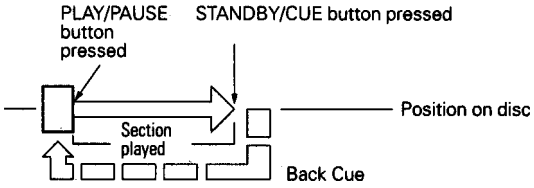
PLAY and PAUSE



When the PLAY/PAUSE button is pressed, playback starts and proceeds as shown by the arrow on the diagram above.

If the PLAY/PAUSE button is pressed again during playback, the pause mode is set at that point. Press the PLAY/PAUSE button again to resume playback.

PLAY and CUE

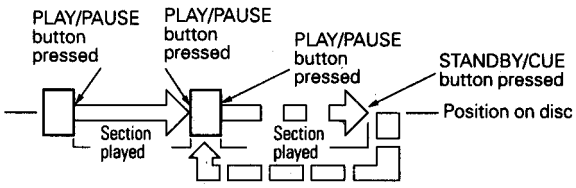


When the STANDBY/CUE button is pressed after starting playback by pressing the PLAY/PAUSE button, the pickup returns to the position at which playback was started and prepares for the next playback.

Press the PLAY/PAUSE and STANDBY/ CUE buttons alternately to start playback repeatedly from the same position.

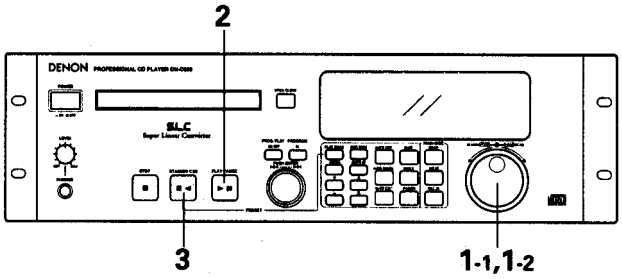
This function is called "Back Cue".

PLAY, PAUSE and CUE



If the pause mode is set and playback is then resumed, the position to which the pickup returns with the Back Cue function changes.

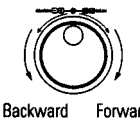
5 HANDY OPERATIONS



(1) Starting Playback from the Middle of a Track (Manual Search)

- When a track is selected and the PLAY/PAUSE button is pressed, playback starts from the beginning of that track. To start from a different position in the track, use the procedure described below to find the desired position.

1-1 **Find the play start position.**
Turn the SEARCH dial.



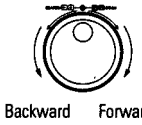
When the SEARCH dial (inner side) is turned, the frame move mode is set. The playback position moves one frame for each click.

When the dial is turned clockwise, the playback position moves as follows:

03m 46s 52f ⇨ 53f ⇨ 54f

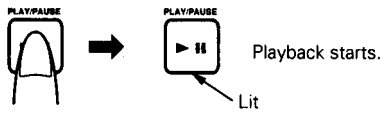
Listen to the sound and find the desired play start position.

1-2 Turn the SCAN dial to change the playback position quickly.



The fast forward/reverse mode is set when the SCAN dial (outer side) is turned. The speed changes according to the angle at which the dial is turned.

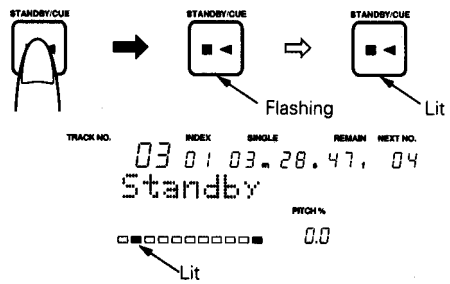
2 **To check the play start position:**
Press the PLAY/PAUSE button.



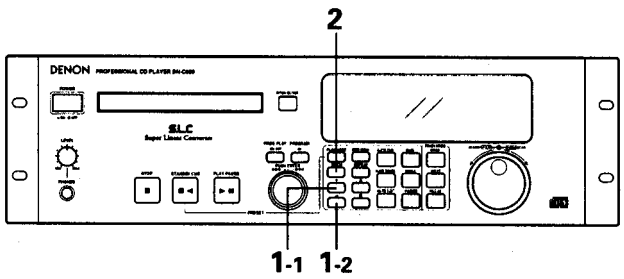
Playback starts.

Monitor the play signal to check the play start position.

3 **Cue the play start position.**
Press the STANDBY/CUE button.



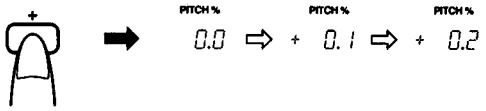
The pickup returns to the play start position and the standby mode is set.



(2) Playing at a Different Speed (Pitch)

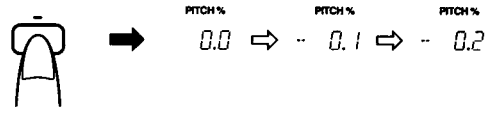
- Use this function to play discs at different speeds.
- The speed can be changed within the range of -9.9 to +9.9%.

1-1 **Set the play speed.**
(1) To increase the speed:
Press the " + " button.



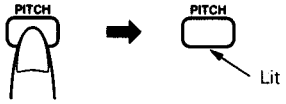
The speed increases by 0.1% each time the button is pressed. If the button is held in, the speed changes continuously.

1-2 (2) To decrease the speed:
Press the " – " button.



The speed decreases by 0.1% each time the button is pressed. If the button is held in, the speed changes continuously.

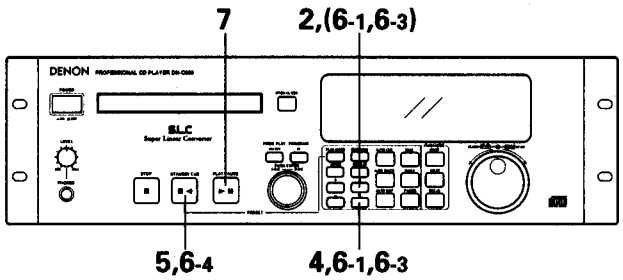
2 **Set the pitch play mode.**
Press the PITCH button.



The button lights and the set play speed is set.

NOTE: When the PITCH button is lit, the play speed can be changed by pressing the " + " and " – " buttons.

NOTE:
When the play speed (PITCH) is set, the display shows the set pitch, but the disc is played at the standard speed until the PITCH button is pressed (and the button is lit). When the play speed is changed, the sampling frequency of the digital output signal also changes, so it may not be possible to receive digital signals.



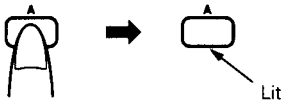
(3) Playing a Specific Section of the Disc (A-B Play)

- Use this function to set the play start and end positions and only play the desired section of the disc.

NOTE: The A-B play mode cannot be set unless the A point, B point or both the A and B points are set.

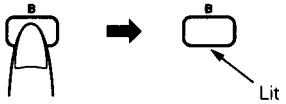
1 **Find the play start position (A point).**
- Turn the SEARCH or SCAN dial to find the desired play start position.

2 **Set the A point.**
Press the "A" button.



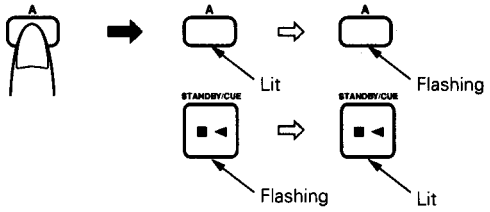
3 **Find the play end position (B point).**
- Turn the SEARCH or SCAN dial to find the desired play end position.

4 **Set the B point.**
Press the "B" button.



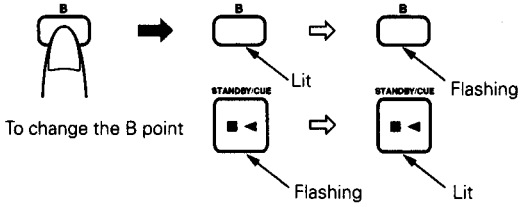
* When setting the B point during playback, the B point can only be set if the A point is set before it.

5 **Cue the A point.**
Press the "A" button.



" Standby " appears on the character display.
If the STANDBY/CUE button is pressed first, press the "A" button again.

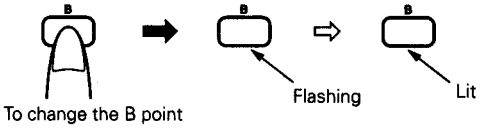
6-1 **To change the A–B section:**
Press the "B" (or "A") button.



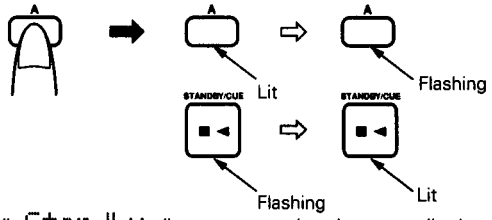
" Standby " appears on the character display.

6-2 **Find the play end point (B point) (or play start point (A point)).**
- Turn the SEARCH dial to find the desired play end point.

6-3 **Set the new B point (or A point).**
Press the "B" (or "A") button.

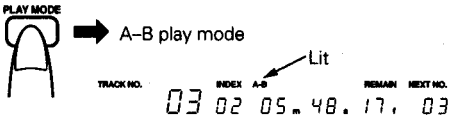


6-4 **Cue the A point.**
Press the "A" button.

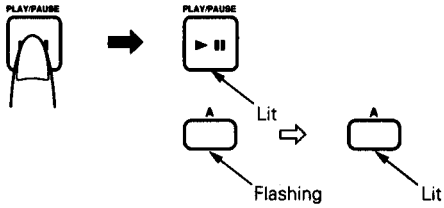


" Standby " appears on the character display.

7 **Set the A–B play mode.**
Press the PLAY MODE button.



8 **Start playbackPress the PLAY/PAUSE button.**

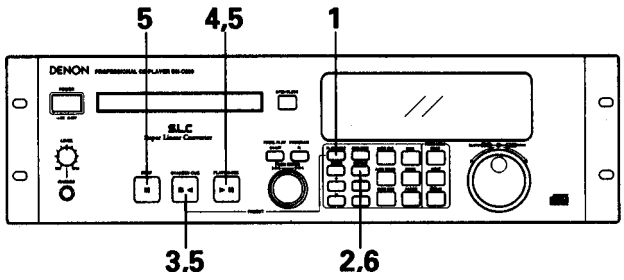


Playback starts from the A point and stops when the B point is reached.
"A–B" flashes on the display during the A–B play mode.

9 **Clearing the A and B points**
- The set A and B points are cleared when the disc is ejected.
- If the " – " button is pressed while the A or B button is flashing, the button turns off, the set A or B point is cleared and the play mode is set to the single track play mode.

NOTE:
The following happens if either the A or B point is not set:
- If only the A point is set, the B point is automatically set at the end of the track for which the A point is set.
- If only the B point is set, the A point is automatically set at the beginning of the track for which the B point is set.

If the playing time of the A-B section is shorter than the total of the set fade in and fade out times, the fade in and fade out settings are ignored.
When the B point is before the A point, the section from the B point to the A point is played.



(4) Playing Repeatedly (Repeat)

1

Select the play mode.
Press the PLAY MODE button.

To play the single selected track repeatedly: A-B **SINGLE** (Lit)

⇩

To play all the tracks on the disc repeatedly: A-B SINGLE

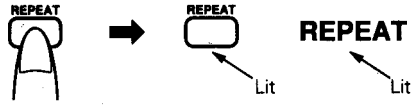
⇩

To play the set section repeatedly: **A-B** SINGLE (Lit)

NOTE: The A–B repeat mode cannot be set unless the A point, B point or both the A and B points are set.

2

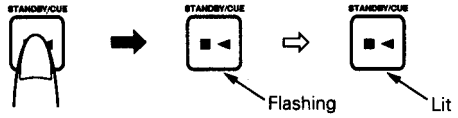
Select the repeat mode.
Press the REPEAT button.



The button lights, and the repeat mode is set.

3

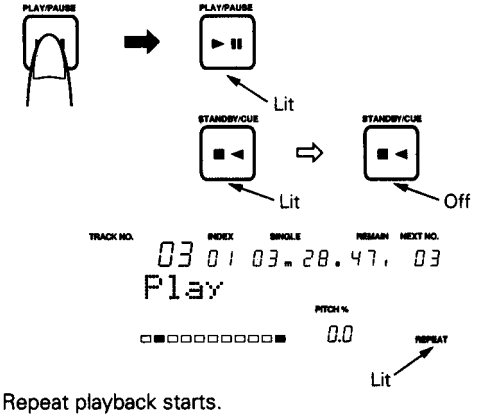
Standby at the play start position.
Press the STANDBY/CUE button.



The pickup returns to the play start position and the standby mode is set.

4

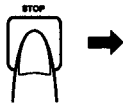
Start playback.
Press the PLAY/PAUSE button.



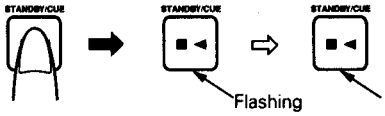
Repeat playback starts.

5

Stopping playback
Playback can be stopped in the following ways:



Playback is interrupted and the stop mode is set.

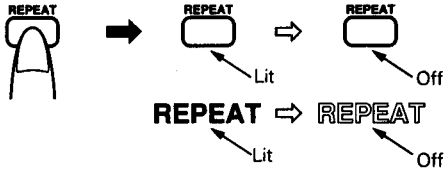


Playback is interrupted, the pickup returns to the play start position and the standby mode is set.

Playback is interrupted and the pause mode is set at that point.

6

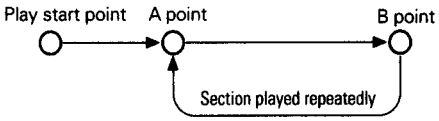
Canceling the repeat mode during playback
Press the REPEAT button.



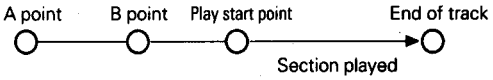
The normal play mode resumes and playback continues to the play end point.

A-B repeat play

If playback is started before the A point, playback continues to the B point, then returns to the A point for repeat playback.

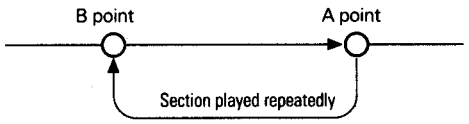


If playback is started after the B point, playback continues to the end of that track and nothing is repeated.

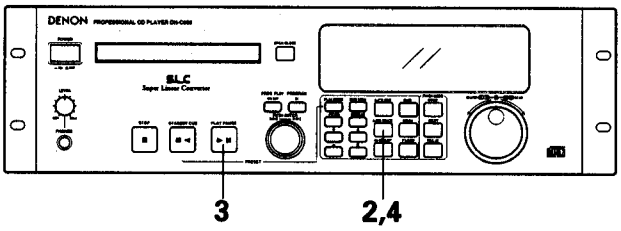


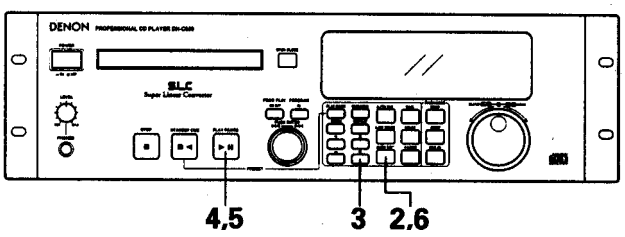
NOTE:

- When the B point is before the A point, the section from the B point to the A point is played repeatedly.



- The repeat mode cannot be set when the AUTO EDIT button is lit.



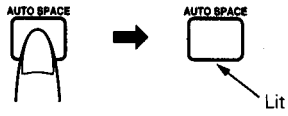


(5) Inserting Blank Spaces Between Tracks (Auto Space)

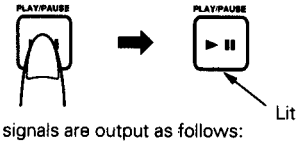
- Use this function to insert blank spaces of 4 seconds between tracks during continuous playback.

1 **Load a disc.**

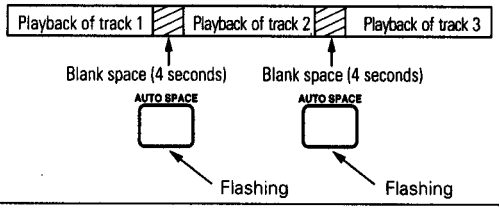
2 **Set the auto space mode.**
Press the AUTO SPACE button.



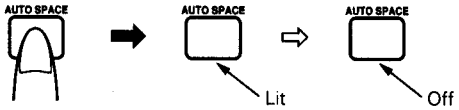
3 **Start playback.**
Press the PLAY/PAUSE button.



The playback signals are output as follows:



4 **Cancel the auto space mode.**
Press the AUTO SPACE button.



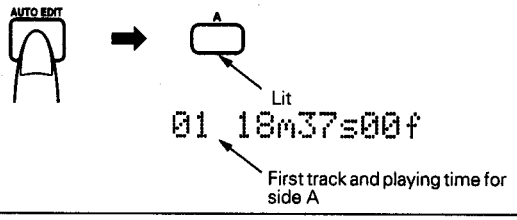
NOTE:
When non-consecutive tracks are played (when the search operation is performed), a blank space of over 4 seconds may be inserted automatically.

(6) Dividing the Playing Time in Two (Auto Edit)

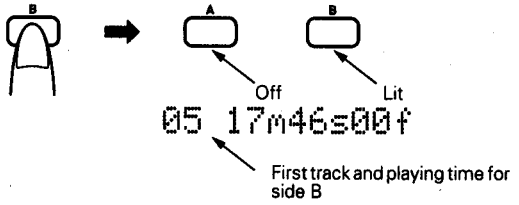
- Use this function to divide the total playing time of the disc into side A (first half) and side B (second half).

1 **Load a disc.**

2 **Set the auto edit mode.**
Press the AUTO EDIT button.

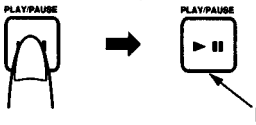


3 **To check the playing time for side B:**
Press the "B" button.

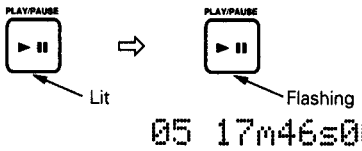


Press the "A" button to display the playing time for side A.
Press the "B" button to display the playing time for side B.

4 **Start playing side A.**
Press the PLAY/PAUSE button.



When playback of side A is finished, the pause mode is set at the starting position for side B.



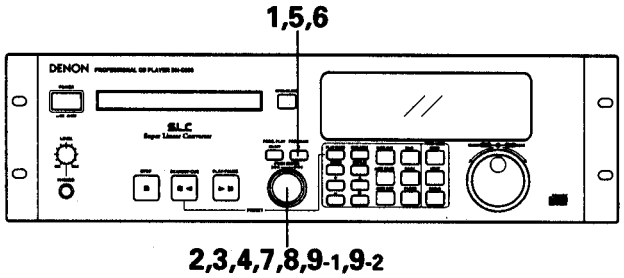
5 **Start playing side B.**
Press the PLAY/PAUSE button.

- When playback of side B is finished, the pickup returns to the starting point for side A and the standby mode is set. (at Finish mode Next or Recue)
- When playback of side B is finished, the servo functions turn off.

6 **To cancel the auto edit mode:**
Press the AUTO EDIT button to cancel the auto edit mode and return to normal playback. (at Finish mode Stop)

6 PROGRAMMED PLAYBACK

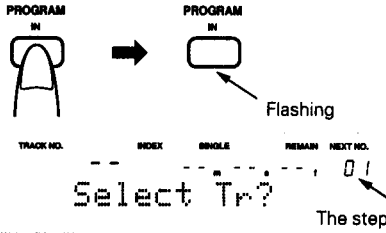
- The tracks can be programmed to play in a certain order.
- Up to 25 tracks can be programmed.
- Programmed playback is performed according to the play mode (single or continuous) and finish mode (stop, next or recue) settings.



(1) Inputting the Program

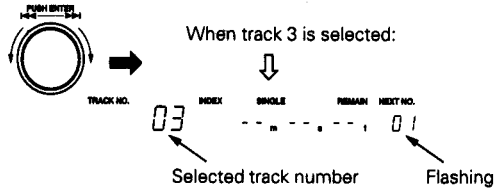
1

Set the program input mode.
Press the PROGRAM IN button.



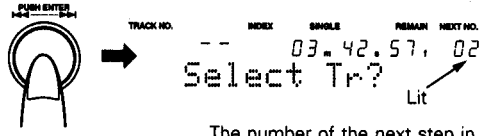
2

Select the track to be programmed.
Turn the select knob (⏮ — ⏭).



3

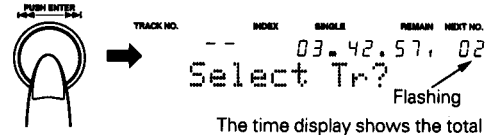
Enter the selected track in the program.
Press the select knob.



The number of the next step in the program is displayed.

4

Enter the next track in the program.
Press the select knob.

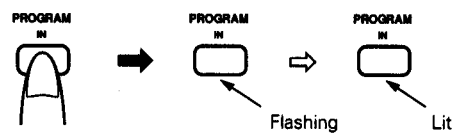


The time display shows the total playing time for the program.

Repeat steps **2**, **3** and **4** to program the tracks in the desired order.

5

Exit the program input mode.
Press the PROGRAM IN button.

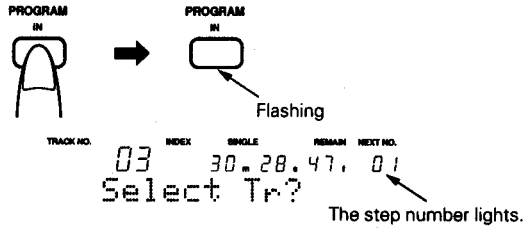


The set returns to the normal mode.

(2) Changing the Program

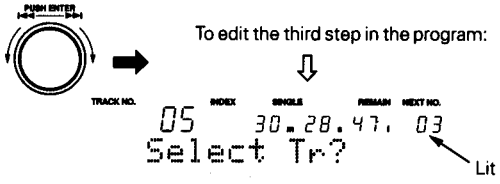
6

Set the program edit mode.
Press the PROGRAM IN button.



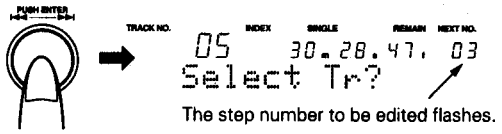
7

Select the step number to be edited.
Turn the select knob (⏮ — ⏭).



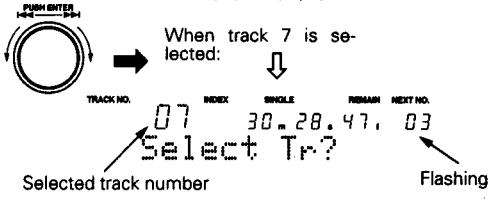
8

Set the program change mode.
Press the select knob.



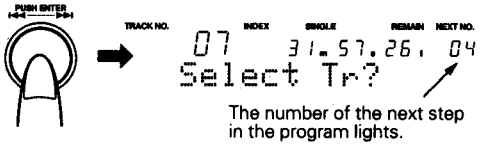
9-1

To change the track:
Select the track to be changed.
Turn the select knob (⏮ — ⏭).



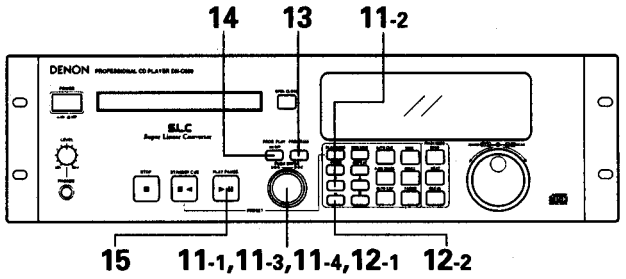
9-2

Enter the selected track.
Press the select knob.



To continue editing the program, repeat steps **7**, **8**, **9–1** and **9–2**.

To exit the program editing mode, press the **PROGRAM IN** button. The set returns to the normal mode.

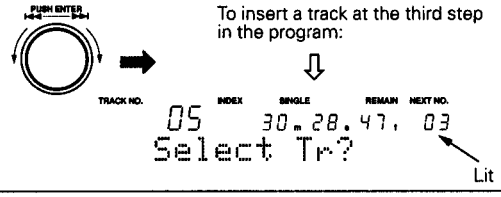


11-1

Inserting a track in the program

Select the position at which to insert a track.

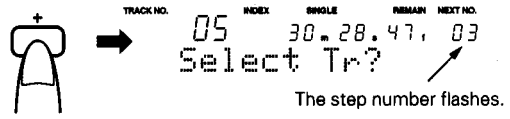
Turn the select knob (⏮ — ⏭).



11-2

Set the program insert mode.

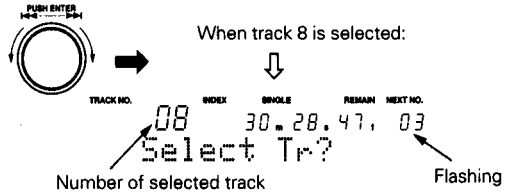
Press the " + " button.



11-3

Select the track to be inserted.

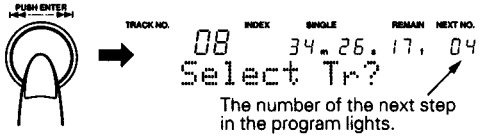
Turn the select knob (⏮ — ⏭).



11-4

Enter the selected track.

Press the select button.



To insert more tracks in the program, repeat steps **11–1**, **11–2**, **11–3** and **11–4**.

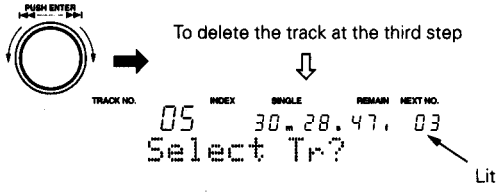
(To exit the program insert mode, press the **PROGRAM IN** button.)

12-1

Deleting tracks from the program

Select the step to be deleted.

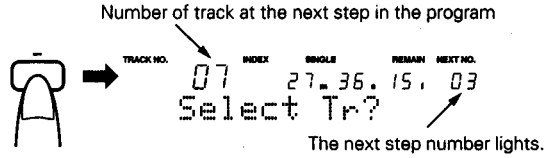
Turn the select knob (⏮ — ⏭).



12-2

Delete that track from the program.

Press the " – " button.

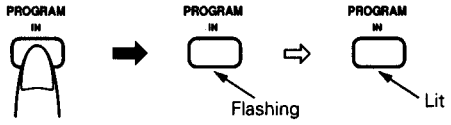

Number of track at the next step in the program
TRACK NO. INDEX SINGLE REMAIN NEXT NO.
07 27.36.15, 03
Select Tr?
The next step number lights.

To continue deleting tracks from the program, repeat steps **12–1** and **12–2**.

13

Exit the program editing mode.

Press the PROGRAM IN button.

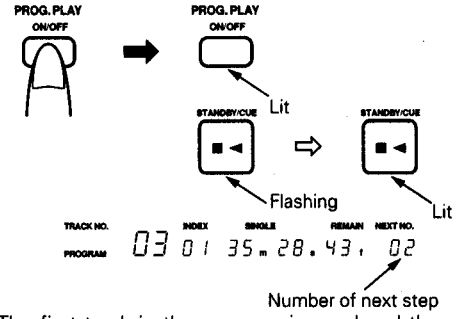


(3) Playing Programs

14

Set the program play mode.

Press the PROG. PLAY button.

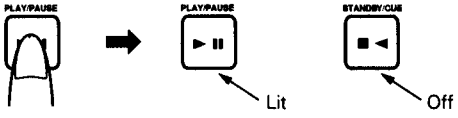


The first track in the program is cued and the standby mode is set.

15

Start programmed playback.

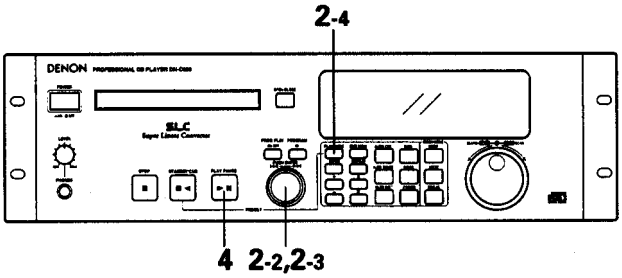
Press the PLAY/PAUSE button.



Programmed playback starts.

- When the disc is ejected, the set program is cleared.
- If a track that is not in the program is selected with a serial command during programmed playback, that command is ignored.

NOTE:
Programs cannot be input when no disc is loaded.



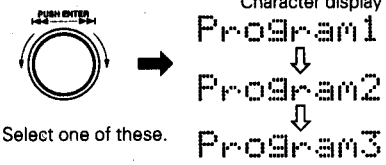
(4) **Presetting Programs**

- Programs can be stored in the preset memory. When a disc for which a program is preset is loaded, the programmed playback mode is set automatically.
- Programs can be stored for up to three discs.

1 **Input the program.**
Follow the instructions under "(1) Inputting the Program" to input the program. (See Page 19.)

2-1 **Set the preset mode.**
Follow the instructions under "(2) Presetting Procedure" to set the preset mode. (See Page 23.)

2-2 **Select the preset item.**
Turn the select knob to select "Program1" (or "Program2" or "Program3").



2-3 **Change the preset setting.**
Press the select knob.

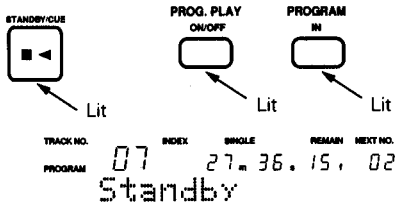
The character display changes as follows:

Before change		After change
Program1 OFF	⇨	Program1 ON
Program2 OFF	⇨	Program2 ON
Program3 OFF	⇨	Program3 ON

2-4 **Cancel the preset mode.**
Press the PLAY MODE button.

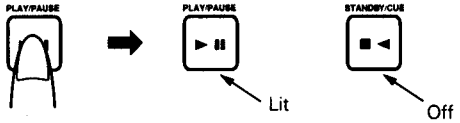
The preset setting mode is canceled and the set returns to the normal mode.

3 **To play a preset disc:**
Load a disc for which a program is preset.



The pickup searches for the first programmed track and the standby mode is set.

4 **Start programmed playback.**
Press the PLAY/PAUSE button.



Programmed playback starts.

7 PRESET FUNCTIONS AND OPERATIONS

(1) List of Preset Functions

- Functions can be preset using the buttons on the front panel. These presettings are stored in a permanent memory, so they are not cleared even when the power is turned off.
- The functions shown on the table below can be preset. Set the functions according to the usage purpose to efficiently achieve even higher quality playback**.**
- One of the preset functions can be used to display information on this set (microprocessor version).

Preset function type	Description	Character display (as set upon shipment from factory)	No.
Preset type	Selection of preset type	Preset Type 1	1
Auto cue	Setting of audio startup level for auto cue function	CueDet.-60db	2
Auto stop	Setting of whether or not to automatically stop the servo functions	Sleep ON	3
FS converter	Setting of whether or not to use the FS converter and sampling frequency setting (when optional FS converter mounted)	FS OFF	4
Program 1	Setting of whether or not to play program 1	Program1 OFF	5
Program 2	Setting of whether or not to play program 2	Program2 OFF	6
Program 3	Setting of whether or not to play program 3	Program3 OFF	7
Digital output	Selection of output signal format	D.Out Pro	8
Digital output	Selection of whether or not to output subcodes	Subcode OFF	9
End monitor	Setting of whether or not to use the end monitor function and monitor time setting	End Mon. 10sec	10
E.O.M.	Setting of whether or not to display the EOM and display time setting	E.O.M. 10sec	11
Next track standby	Setting of whether or not to standby at the next track when the STANDBY/CUE button is pressed during playback	NextStb.OFF	12
Fade in time	Fade in time setting	FadeIn OFF	13
Fade out time	Fade out time setting	Fadeout OFF	14
Play speed	Standard playing speed setting	Normal Speed	15
Delay start	Delay start time setting	Delay OFF	16
Play lock	Selection of whether or not to inhibit the panel switches during playback	PlayLock OFF	17
Frame display	Selection of whether or not to display frames	FR Disp ON	18
CDR disc	Selection of whether or not to play CDR discs which do not include a TOC	CD-R NO TOC	19
CDR disc	Selection of whether or not to play skip tracks on CDR discs	CD-R Skip OFF	20
Serial remote	Baud rate setting	9600bps	21
Switch protect	Selection of whether or not to enable the panel switches	Switch ENA	22
Player ID	Selection of whether or not to set player IDs and selection of ID number	PlayerID OFF	23
Parallel remote	Selection of whether or not to accept parallel remote signals	Remote ENA	24
Parallel remote	Selection of whether or not to output standby tally	ST. Tally ON	25
Parallel remote	External control tally output signal setting	Index2 Tally	26
Parallel remote	Fader start mode selection	Fader Pause	27
Stereo/mono	Selection of stereo or monaural playback	Stereo	28
Pos Code	Selection of whether or read Pos codes	Pos OFF	29
Preset clear	Setting for clearing presets and setting them to the initial values	' Init. Preset	30
Set information	Microprocessor version display	Ver. **** (* = number)	31

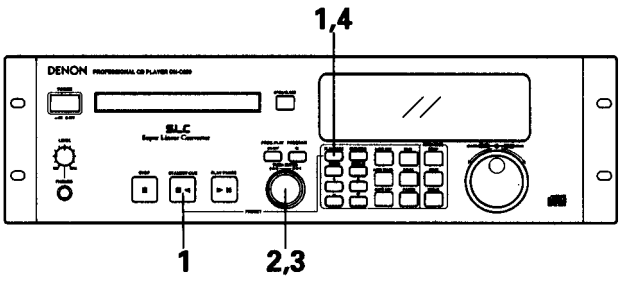
When presettings are made, the time display set with the TIME button, the play mode set with the PLAY MODE button and the finish mode set with the FINISH MODE button at that time are stored in the memory. These modes will be set when the power is next turned on.

NOTE:

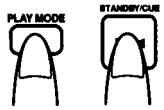
For CDR discs without TOCs, there are no pits (signals) at the disc's lead in and lead out sections, so errors may occur, particularly when searching for tracks. If an error should occur, open the disc holder, then close it and perform the operation again.

(2) **Presetting Procedure**

- Functions can be preset using the buttons on the front panel.
- The presettings can also be set using serial remote signals (RS232C/RS422A1.
- Make the presettings with no disc loaded, in the stop or standby mode.



1 **Enter the preset mode.**
Press the STANDBY/CUE button while pressing the PLAY MODE button.



Character display
Preset Mode

2 **Select the preset item.**
Turn the select knob (⏮ — ⏭).

Turn the knob clockwise to move in the direction of the arrows, counterclockwise to move in the opposite direction.

Character display

Preset Type1
⇩
CueDet.-60dB
⇩
Sleep OFF
⇩
FS OFF
⇩
Ver.****

NOTE: The first preset item displayed is the last preset item displayed the last time the presettings were made.

3 **Change the preset values.**
Press the select knob.

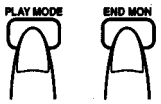
The character display changes as shown below.

Before change		After change
Preset Type1	⇨	Preset Type2
CueDet.-60dB	⇨	CueDet.-54dB
Sleep OFF	⇨	Sleep ON
FS OFF	⇨	FS 32kHz

4 **Exit the preset mode.**
Press the PLAY MODE button.

The preset mode is canceled and the set returns to the previous mode.

5 To set the presettings back to the initial settings (the settings set upon shipment from the factory), turn the power on while holding in both the PLAY MODE and the END MON buttons. For the initial settings, refer to "(1) List of preset functions".



The character display changes as shown below.
Initial Set

NOTE:
If the message shown below appears, there is a problem with the preset memory. Contact a serviceperson.

Initial Error

(3) Detailed Description of Preset Functions

(* = initial setting)

1) "Preset Type (*1" (Three different sets (types) of presettings can be made and used for different purposes.)
   - * Preset Type1 : Set to preset type 1.
   - Preset Type2 : Set to preset type 2.
   - Preset Type3 : Set to preset type 3.

2) "CueDet. (-**) dB"
   - CueDet. (-**) dB : Set the audio detection level for cueing. (-72/-66/*-60/-54/-48/-42/-36)

3) "Sleep ON (OFF)"
   - * Sleep ON : Automatically turn the servo functions off if no button is operated for 30 minutes in the pause, standby or manual search mode.
   - Sleep OFF : Do not automatically turn the servo functions off.

4) "FS OFF (***kHz)" (This setting can only be made when an optional FS converter is mounted.)
   - * FS OFF : Do not use the FS converter.
   - FS (***kHz) : Select the digital output FS. (32kHz/44.1 kHz/48kHz)

5) "Programl OFF (ON)"
   - Programl OFF (ON) : Store the contents of program 1 when on. (Initial setting-OFF)

6) "Progam2 OFF (ON)"
   - Program2 OFF (ON) : Store the contents of program 2 when on. (Initial setting - OFF)

7) "Program3 OFF (ON)"
   - Program3 OFF (ON) : Store the contents of program 3 when on. (Initial setting - OFF)

8) "D.Out Pro (Cons)"
   - *D.Out Pro : Output digital signals in AES/EBU format.
   - D.Out Cons : Output digital signals in consumer format.

9) "Subcode ON (OFF)" (When "D.Out Cons" is set above, subcodes can be output with the digital output signals.)
   - Subcode ON : Output subcodes with the digital output signals. (consumer SPDIF format)
   - *Subcode OFF : Do not output subcodes with the digital output signals. (consumer IEC 958 Type II format)

   NOTE: 0 sec. start is not possible when the above is set to "Subcode ON".

10) "End Mon. (**)sec"
   - End Mon. (**)sec : Set the end monitor time. (5/*10/15/20/25/30/35)
   - End Mon. OFF : Do not use the end monitor function.

11) "E.O.M. (**)sec" (Output EOM tally signal to remote pint (24))
   - E.O.M. (**)sec : Set the EOM time. (0/5/*10/15/20/25/30)
   - E.O.M. OFF . Do not use the EOM function.

12) "Next Stb.Off (ON)"
   - *Next Stb.OFF : Return to the play start position and standby when the STANDBY/CUE button is pressed during playback.
   - Next Stb.ON : Standby at the beginning of the next track when the STANDBY/CUE button is pressed during playback.

13) "FadeIn OFF ('s)"
   - FadeIn OFF (***s) : Set the fade in time. (*OFF/10m/50m/0.1/0.5/1/2)

14) "FadeOut OFF (***s)"
   - FadeOut OFF (***s) : Set the fade out time. (*OFF/10m/50m/0.1/0.5/1/2)

15) "Normal (+/-***%) Speed"
   - *Normal Speed : Play at normal speed.
   - (+/-***%) Speed : Play at variable speed. t(0.2/0.4/0.6/0.8/1.0/1.2/1.4/1.6/1.8/2.0/2.2/2.4/2.6/2.8/3.0)

16) "Delay OFF (***ms)"

Delay OFF (***ms) : Set the time for delayed start after the play start operation. (*OFF/100m/200m/300m)

17) "PIayLock ON (OFF)"

PIayLock ON : Inhibit all operations other than the PLAY/ PAUSE, TIME and PLAY MODE buttons during playback.

* PIayLock OFF : Enable all functions during playback.

18) "FR Disp ON (OFF)"

* FR Disp ON : Display the frames on the time display during playback.

FR Disp OFF : Do not display the frames on the time display during playback.
(The frames are displayed in the manual search, standby, pause and end monitor modes.)

19) "CD-R TOC (NO TOC)"

CD-R TOC . : Play normal CDR discs containing TOCs.

* CD-R NO TOC . : Play CDR discs not containing TOCs.

20) "CD-R SkipON (OFF)"

CD-R SkipON . : Play skip tracks on CDR discs.

* CD-R SkipOFF . : Do not play skip tracks on CDR discs.

21) "9600 (19200) bps"

* 9600 bps : Set the baud rate to 9600 bps.

19200 bps : Set the baud rate to 19200 bps.

22) "Switch ENA (INH)"

* Switch ENA : Enable operation of all the switches on the front panel.

Switch INH : Inhibit operation of all panel switches other than those used for presetting operations.

23) "Player ID (**1"

Player ID (**) : Set the player ID.
(The ID can be set to OFF or to 0 to 15. The initial setting is "OFF".)

24) "Remote EMA (INHI"

* Remote ENA : Enable input of control signals to the parallel remote connector.

Remote INH : Inhibit input of control signals to the parallel remote connector.

25) "St. Tally ON (OFF)"

* St. Tally ON : Output standby tally from parallel remote connector.

St. Tally OFF : Do not output standby tally from parallel remote connector.

26) "(******) Tally"

* INDEX2 Tally : Output index 2 tally signal to remote pin (17).

INDEX3 Tally : Output index 3 tally signal to remote pin (17).

27) "Fader Pause (Play)"

* Fader Pause : Start playback when remote fader pins (9-10) are short-circuited and pause when pins are open.

Fader Play : Start playback when remote fader pins (9-10) are short-circuited and continue playback when pins are open.

28) "Stereo (Mono)"

* Stereo : Output L and R stereo signals from the output connector.

Mono : Output mixed L and R signals from the output connector.

29) "Pos ON (OFF)"

Pos ON : Read Pos codes on CD and CDR discs.

* Pos OFF : Do not read Pos codes on CD and CDR discs.

30) "Preset Clr? (Init. Preset)"

Preset Clr? : Clear the presettings (set to the initial factory values).

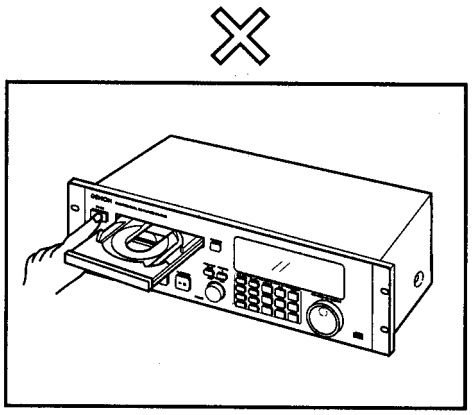
* Init. Preset : Do not clear the presettings.

31) "Ver. xxxx" : Display the microprocessor version. ("xxxx" is a number.)

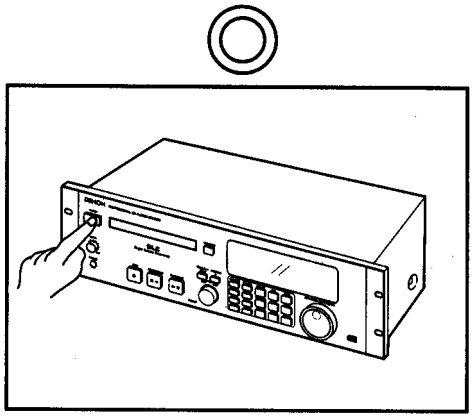
8 BEFORE SWITCHING OFF THE POWER

When you have finished using the CD player, before switching off the power be sure that the disc holder has been closed with the OPEN/CLOSE button.

CAUTION:
Do not forcibly close the disc holder when the power is off. It may damage the unit when it is transported.



Do not switch off the power when the disc holder is open.
POWER OFF



Switch off the power after the disc holder has been closed with the OPEN/CLOSE button.
POWER OFF

9 COMPACT DISCS

(1) Precautions on handling compact discs

- Do not allow fingerprints, oil or dust to get on the surface of the disc.
  If the disc is dirty, wipe it off with a soft dry cloth.
- Do not use benzene, thinner, water, record spray, electrostatic-proof chemicals, or silicone-treated cloths to clean discs.
- Always handle discs carefully to prevent damaging the surface; in particular when removing a disc from its case or returning it.
- Do not bend the disc.
- Do not apply heat.
- Do not enlarge the hole in the center of the disc.
- Do not write on the label (printed side) with a hard-tipped implement such as a pencil or ball point pen.
- Condensation will form if a disc is brought into a warm area from a colder one, such as outdoors in winter. Do not attempt to dry the disc with a hair dryer, etc.

(2) Precaution on storage

- After playing a disc, always unload it from the player.
- Always store the disc in the jewel case to protect from dirt or damage.
- Do not place discs in the following areas:
  1) Areas exposed to direct sunlight for a considerable time.
  2) Areas subject to accumulation of dust or high humidity.
  3) Areas affected by heat from indoor heaters, etc.

10 TROUBLESHOOTING

When you think the player might be broken, please check the following items.

The disc holder does not open or close.

- Is the power switch set to ON?
- Is the player in the process of playing a disc? . . . . . See page 12

The display still indicates "—" when a disc is loaded.

- Is the disc loaded properly?
- Is the disc dirty or scratched?

There is no sound or the sound is distorted.

- Are the output cables connected to the amplifier correctly?
- Is the adjustment of the amplifier's controls and switching correct?

The specified portion of the disc cannot be played back correctly.

- Is the disc dirty or scratched?

There is a button that doesn't function.

- Has a preset such as PLAY-LOCK been set? . . . . . See Page 25

11 SPECIFICATIONS

GENERAL

Type: CD Player

Disc type: Standard Compact Discs (12 cm, 8 cm/5", 3")

AUDIO SECTION

Channels: 2 channels (Stereo), 1 channel (Mono)

Sampling Frequency: 44.1 kHz (32/48 kHz available using optional ACD-25FSC)

Digital Filter: 18 bit 8-times oversampling Digital filter

Frequency Response: 5 to 20,000 Hz (t 1.0 dB)

Total Harmonic Distortion: 0.003% (1 kHz, 0 dB playback, A filter)

Signal to Noise Ratio: 105 dB (1 kHz, 0 dB playback, A filter)

Channel Separation: 100 dB (1 kHz, 0 dB playback, A filter)

Analog Output: 1 kHz, 0 dB playback

Pin No.	U.S.A. & Canada	Europe & Asia & Others
1	Common	Common
2	Cold	Hot
3	Hot	Cold

Transfer and Connector: Balanced active, XLR connector
Unbalanced, RCA jack

Output Level: Balanced: + 18 dBs, 600 62/ohms
Unbalanced: 2 Vrms, 10 kg/kohms

Output Level Adjust Range: +22 dBs to -20 dBs (Balanced)

Headphone Output: 20 mW (30 to 40 52/ohms)

Digital Output

Transfer and Connector: Balanced active, XLR connector (1. Common 2. Cold 3. Hot)
Unbalanced, RCA jack

Signal Format: AES/EBU or IEC 958 Type II or SPDIF

Output Level: Balanced: 3 Vp-p, 110 ohms
Unbalanced: 0.5 Vp-p, 75 ohms

Variable Pitch Control: f 9.9% max.

Audio Start-up rime: 0.01 second less

Frame Search Accuracy: 1 frame (1 /75 second)

DIMENSIONS: 4820) x 132(H) x 297(D)mm
(19.0" x 5-13/64" x 11-11 / 16")

WEIGHT: 6.8 kg, 15 Ibs

POWER CONSUMPTION: 19 W

POWER SUPPLY: AC 120 V 10%, 60 Hz (U.S.A. and Canada)
AC 230 V 10%, 50 Hz (Europe, Asia, Others)

ENVIRONMENTAL CONDITIONS

Operating Temperature: +5°C to 35°C

Humidity: 25% to 85%, non condensing

Storage Temperature: -20°C to 60°C

REMOTE

Serial Remote: RS232C/RS422A (switchable), D-sub 9-pin

Parallel Remote: D-sub 25-pin

" Specifications and design are subject to change without notice for purpose of improvement.